

Of these we consider points ii., iii., and especially iv. and vi. the most important. The absence of scales, etc., is probably due to degeneration. Another important character is the condition of the alimentary canal. It differs from that of *Mastacembelus* and *Rhynchobdella* * in the absence of caecal pyloric appendages, and in its straight course and simple structure.

All these points, considered together, we regard as quite sufficient justification for retaining the family Chaudhuriidae, which we may redefine as follows:—Minute and probably degenerate Opisthomi devoid of spines in the fins, of a fleshy tentacle on the snout, and of scales; with a basisphenoid in the skull; with the otic capsules of exceptionally large size and complex structure; with the supracleithrum and cleithrum completely fused together, and with the elements of the primary shoulder-girdle degenerate and barely distinguishable; with the alimentary canal almost straight and devoid of pyloric appendages.

XXXVIII.—*Preliminary Descriptions of Three new Parasitic Nematodes.* By H. A. BAYLIS, M.A., D.Sc., British Museum (Natural History), and R. DAUBNEY, M.Sc., M.R.C.V.S., Ministry of Agriculture and Fisheries.

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THE following new forms occurred among material belonging to the Zoological Survey of India, which unfortunately reached us too late for inclusion in a report prepared by us on the main collection of parasitic nematodes. Fuller descriptions, with figures, will be published later, together with a report on the rest of this material.

Crossocephalus brevicaudatus, sp. n.

Host: Indian rhinoceros (*Rhinoceros indicus*).

Position: stomach.

Locality: Nepal, India.

Three females only. Length 5·3–6·2 mm. Maximum thickness up to 0·4 mm. No cervical papillae seen, except those on the cuticular collar. Oesophagus 0·945–0·955 mm. long. Excretory pore at 1·22–1·35 mm. from anterior end (buccal armature inverted), connected with an ovoid bladder measuring 0·13 × 0·08 mm. Tail short and blunt, about 0·25 mm. long. Vulva at about 0·13 mm. from anus. Uterus contains 6–8 embryos of various sizes.

This species differs from *C. longicaudatus*, Baylis, already

* Day, Fish. India, p. 338 (1878).

recorded from a rhinoceros, in having a tail (in the female) only about one-seventh as long at that of *C. longicaudatus*, and also in having the excretory pore situated much nearer to the anterior end.

Strongyluris calotis, sp. n.

Host : *Calotes nigrilabris*.

Position : rectum.

Locality : Ceylon.

Length: male, 8·9–11·1 mm.; female, 11–13·65 mm. Maximum thickness: male, 0·4–0·5 mm.; female, 0·55–0·75 mm. Diameter of head 0·06–0·08 mm. Lips with lateral and anterior cuticular flanges. Neck forms a "shoulder" behind base of lips, and a second "shoulder" is formed further back by a cuticular inflation covering part of the pharyngeal and œsophageal regions. Distance from anterior end to end of œsophagus (including bulb) 1·75–2·25 mm. Intestine expanded at junction with œsophagus, and again in front of rectum. Tail, in both sexes, with a minute terminal spike.

Male.—Caudal end abruptly truncate, sucker and cloaca opening almost posteriorly. Chitinous wall of sucker very deep (0·12–0·16 mm.), and 0·14–0·17 mm. in outside diameter. Spicules subequal, 0·75–0·8 mm. long. Ten pairs of caudal papillæ (seven postanal and three at sides of sucker).

Female.—Tail 0·22–0·25 mm. long, bluntly rounded except for terminal spike. Vulva a transverse slit with prominent lips, at 4·7–5·65 mm. from posterior end. Eggs measure 0·0875–0·0975 × 0·05–0·0525 mm., and contain early embryos when ready for laying.

Tetragomphius procyonis, gen. et sp. n.

Host : raccoon (*Procyon* sp.).

Locality : Zoological Gardens, Calcutta.

Length: male, 13–15 mm.; female, 16–20 mm. Maximum thickness: male, up to 0·46 mm.; female, up to 0·65 mm. Head small, about 0·14 mm. in diameter, bent dorsally and followed by a long, tapering neck. Buccal capsule cup-shaped, less elongated than in *Uncinaria*, furnished at its entrance with a pair of poorly-developed ventral semilunes. At its base two pairs of teeth: a subdorsal pair, bicuspid and 11–18 μ high, and a subventral pair, bi- or tridentate (usually the latter), about 43 μ high. Dorsal gutter a blunt tubercle at base of capsule-wall. Stout, backwardly-directed cervical spines at 0·6–0·7 mm. from anterior end. Œsophagus about 0·65 mm. long and up to 0·13 mm. thick.

Male.—Bursa small and short, resembling that of *Uncinaria* in form of lateral lobes and in arrangement of lateral and ventral rays. Dorsal lobe shorter than lateral lobes. Main trunk of dorsal ray short and stout, dividing a little behind origin of externo-dorsal rays into two branches, each of which is again divided at its tip. The inner of these terminal divisions is grooved. Genital cone much broader than long, apparently without appendages. Spicules 7–8 mm. long, filiform and barbed.

Female.—Tail about 0·34 mm. long and bluntly pointed. Vulva a transverse slit with prominent lips, at 3·6–4 mm., or about one-fifth of body-length, from posterior end. Vagina short, with feebly-muscular ovejectors running anteriorly and posteriorly. Uterine branches divergent. Eggs in vagina measure 0·076–0·082 × 0·045–0·05 mm.

XXXIX.—*Papers on Oriental Carabidæ*.—IX.

By H. E. ANDREWES.

DESCRIPTIONS OF SOME FURTHER NEW SPECIES OF THE
GENUS *CHLÆNIUS*.

Chlænus himalayicus, sp. n.

Length 16·0–19·0 mm.; width 5·75–7·0 mm.

Black, underside shiny and iridescent; labrum yellow, head metallic green with disk purple, prothorax metallic green at sides, chiefly in front; joints 1–3 of antennæ, palpi at base, and legs testaceous, palpi towards apex and tarsi brown; each elytron with yellow epipleuræ and three yellow spots, the first small, covering shoulder and extending inwards to stria 4, the second larger, a little before middle, joined to first along interval 9 and margin, tapering inwards and extending to stria 3, the third small, near apex, covering intervals 4–8.

Head small, convex, finely rugose, but nearly smooth in middle, vertex coarsely punctate at sides, some finer punctures on front, eyes rather flat, labrum truncate, palpi short, hardly dilated at extremity, antennæ thick, joint 3 elongate, 3–11 compressed and slightly sulcate at sides. *Prothorax* slightly convex, a third as wide again as head, and barely wider than long, more contracted in front than behind and widest behind middle, extremities truncate, sides with narrow reflexed border, gently rounded in front, more strongly behind, front angles close to neck, hind angles strongly rounded; median line just visible on disk, other impressions obsolete, surface densely, coarsely, and confluent punctate.